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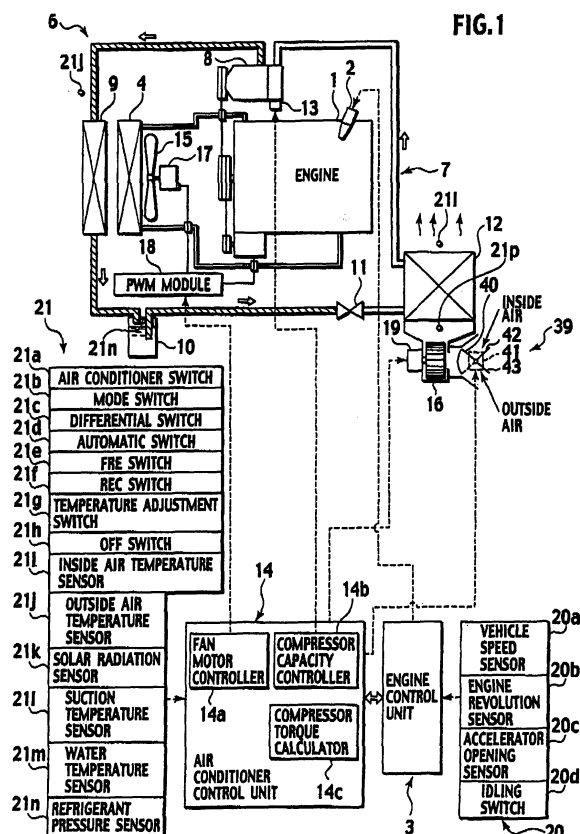
(71) Applicant: **Calsonic Kansei Corporation**
Tokyo 164-8602 (JP)

(72) Inventor: **Noda, Yoshitoshi**
Nakano-ku
Tokyo 164-8602 (JP)

(74) Representative: **Grünecker, Kinkeldey, Stockmair & Schwanhäusser**
Anwaltssozietät
Leopoldstrasse 4
80802 München (DE)

(54) **Torque calculation apparatus and torque calculation method of variable capacitance compressor**

(57) A variable capacitance compressor is provided in a refrigeration cycle of a vehicular air conditioning system. The variable capacitance compressor controls discharge capacity of refrigerant by an external control pulse signal, and can substantially estimate compressor suction side pressure by the external control pulse signal and compressor discharge side pressure. A compressor torque calculator is provided to calculate torque based on evaporator upstream and downstream temperature difference data Δt , which is a temperature difference between inlet side air temperature of an evaporator and outlet side air temperature of the evaporator, compressor discharge side pressure data P_d , duty ratio data of a control pulse signal, and compressor's number of revolution data.





EUROPEAN SEARCH REPORT

Application Number
EP 05 02 2519

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			B60H F02D F04B
Place of search		Date of completion of the search	Examiner
The Hague		16 November 2010	Marangoni, Giovanni
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 05 02 2519

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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